

CLAIMS

What is claimed:

1. A method of protecting crop plants by controlling phytophagous invertebrate pests, plant diseases caused by fungal pests, or both, comprising:
 - 5 applying a series of doses of an aqueous mixture containing an effective amount of a crop protection agent to the locus of the roots of the crop plants by means of perforated or porous conduit on or near the surface of the soil; at least one dose of said series being applied in the period from one week prior to planting to two days prior to harvest; and at least two doses of said series being applied at least two days apart during the growing season of the crop or the
 - 10 infestation period of a pest being controlled.
2. The method of Claim 1 wherein a soil-inhabiting invertebrate pest is controlled by applying an effective amount of the aqueous mixture containing a crop protection agent to the soil at the locus of the roots of the crop plant.
3. The method of Claim 2 wherein potatoes are protected from at least one pest
 - 15 selected from the group consisting of *G. pallida*, *G. rostochiensis*, *Trichodorus* spp., *Paratrachodorus* spp., *Longidorus* spp. *Agriotes* spp. and *Phthorimaea operculella*.
4. The method of Claim 3 wherein potatoes are protected from *G. pallida*.
5. The method of Claim 4 wherein the crop protection agent is selected from the group consisting of oxamyl, aldicarb, ethoprophos, fenamiphos and fosthiesate.
- 20 6. The method of Claim 5 wherein the crop protection agent is oxamyl.
7. The method of Claim 6 wherein the crop protection agent is applied in a series of from 4 to 14 applications.
8. The method of Claim 7 wherein the initial application in the series for a growing season is made within seven days of planting.
- 25 9. The method of Claim 1 wherein a fungal disease caused by a soil-inhabiting fungal pathogen is controlled by applying an effective amount of the aqueous mixture containing a crop protection agent to the soil at the locus of the roots of the crop plant.
10. The method of Claim 1 wherein a foliar-inhabiting invertebrate pest is controlled by applying to the soil at the locus of the roots of a crop plant an effective amount of the
 - 30 aqueous mixture containing a crop protection agent which is then taken up by the plant from the soil.
11. The method of Claim 10 wherein potatoes are protected from at least one pest selected from the group consisting of *Leptinotarsa decemlineata*, *Empoasca fabae* and *Eupterycyba jucunda*.
- 35 12. The method of Claim 1 wherein a fungal disease caused by a foliar-inhabiting fungal pathogen is controlled by applying to the soil at the locus of the roots of a crop plant an effective amount of the aqueous mixture containing a crop protection agent which is then taken up by the plant from the soil.

13. The method of Claim 12 wherein potatoes are protected from at least one fungal disease caused by a fungal pathogen selected from the group consisting of *Phytophthora infestans* and *Alternaria solani*.

5 14. The method of Claim 1 wherein the initial application in the series for a growing season is made within seven days of the onset of the infestation period of a pest being controlled.